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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,764	06/23/2003	Eddy Lambert	016782-0280	5710
22428	7590	07/19/2006		
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER COLE, ELIZABETH M	
			ART UNIT 1771	PAPER NUMBER

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/600,764

Applicant(s)

LAMBERT ET AL.

Examiner

Elizabeth M. Cole

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-46 and 48-51 is/are pending in the application.
- 4a) Of the above claim(s) 9-11, 21-32, 34, 36, 38 and 41-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 12-20, 33, 35, 37, 39, 40 and 48-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/509,427.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

Art Unit: 1771

1. Claims 48-49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not provide support for the limitation of a weight of "at least 1000" since "at least" encompasses any value greater than 1000 and any value greater than 1000 is not supported by the specification.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8, 12-20, 33, 35, 37, 39 and 40, 48-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0329863 in view of EP 0628146 in and Krupnik et al, U.S. Patent No. 6,298,538. EP'863 discloses a nonwoven web of stainless steel fibers which is suitable for use in combustion burners and filters. The nonwoven web comprises a plurality of fibers having a diameter of less than 100 micrometers which have rough outer surfaces. The fibers are randomly distributed and interlocked. Non-sintered webs may be used. See page 2, lines 1-16; page 2, line 55 – page 3, line 2. The density and pore size of the nonwoven web can be controlled by compacting by pressing or rolling the web. The examples set forth in table 1 show porosities of 47-7-85.7. The fiber web can have a weight of about 850-950 grams per square meter. See

examples. EP '863 differs from the claimed invention because EP'863 does not teach that the fibers can be formed from shavings and does not disclose needling the web, although it does disclose that the fibers are interlocked. EP '146 discloses a burner membrane for a radiant burner comprising a compressed web of stainless steel fibers. The web has a porosity of about 78-88 percent. . The fibers can be formed from shavings. See example 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the fibers which were formed from shavings as taught by EP'146 in the invention of EP '863, motivated by the teaching that EP'146 teaches that these types of fibers were recognized as useful in forming burner membranes. With regard to the needling, Krupnik teaches that needling nonwoven webs formed from metal fibers such as stainless steel fibers produces a stronger product. See abstract. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have needled the web of EP '863, in order to produce a stronger fabric.

4. Claims 35 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP '863 in view of EP '146 and Krupnik as applied to claims above, and further in view of De Bruyne et al, U.S. Patent No. 5,088,919. EP '863 does not disclose coating the fibers with a coating that activates the oxidation of the burner fuel mixture. De Bruyne et al teaches that the fibers can be coated with a material which activates the oxidation of the burner fuel mixture. See col. 4, lines 35-49. It would have been obvious to one of ordinary skill in the art to have coated the fibers of EP '863 with the

Art Unit: 1771

coating of De Bruyne et al, motivated by the expectation that this would enhance the heat resistance of the fibers.

5. Applicant's arguments filed 5/15/06 have been fully considered but they are not persuasive. Applicant argues that all of the pending claims require a burner membrane wherein at least one layer is not sintered. However, it is noted that claims 1-8 do not include limitations regarding sintering. Further, with regard to the recitation of a burner membrane, the recitation is found in the preamble of claim 1. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

6. With regard to claim 13, that claim does recite that the burner membrane is not sintered and repeats the limitation that the material is a burner membrane in the body of the claim, not just the preamble. However, initially, it is noted that no additional structure is imparted to the claim by the recitation that the web is a burner membrane. EP '863 teaches that both sintered and non sintered webs can be used for burner membranes and for filters, (see page 2, line 16 as well as page 5, lines 19-200. Applicant argues that EP '863 teaches that when used as a burner membrane the material must be sintered. However, it is not clear where on page 5 the EP '863 reference teaches that the materials in Table 1 are filters not burner membranes. Table

3 does state that the materials are burner membranes and all of those materials have been sintered, but Table 1 just seems to refer to nonwoven webs.

7. Applicant argues the claims require that the needled fiber web is needled in one step and then compressed in a subsequent step. Applicant argues that since EP '863 teaches a compressed web that any needling which was performed on the web as taught by Krupnik would have to be performed after compression and could not have achieved the claimed porosity. However, the instant claims are drawn to a product. The burden is on Applicant to show that any process differences result in an unobvious difference between the claimed product and the prior art product. Further, Krupnik teaches needling as part of the fabrication process of the web itself, not as an after treatment of the thus formed web. Therefore, combining the teachings of Krupnik and EP '863, one of ordinary skill in the art would have been motivated to needle the web of EP '863 during the fabrication of the web itself, not as a treatment of the web after it is formed, such as compression or sintering. Krupnik teaches needling as part of the fabrication of the web itself and therefore the person of ordinary skill in the art would have been motivated to needle the web of EP '863 as part of the process of making the web itself, not after the web was formed. Krupnik teaches that the needling is the last step in the formation of the web, not a treatment of the web after it has been formed.

8. With regard to the weights of the webs, since EP '863 teaches about 950 grams per square meter, this value renders obvious a value of 1000 grams per square meter, since one of ordinary skill in the art would expect that a web having a weight of 1000

Art Unit: 1771

grams per square meter would have about the same properties as a web having a weight of about 950 grams per square meter.

9. With regard to claims 12 and 40, since EP '863 teaches a burner membrane, the limitations of these claims are met.

10. Applicant argues that EP '863 teaches away from the claimed invention because EP '863 teaches that burner membranes must be sintered. However, since EP '863 teaches that both sintered and non-sintered webs can be used, EP '863 does not teach away from the claimed invention. Further, as noted above, claim 1 only recites a burner membrane in the preamble. Further, it is noted that the limitation of a burner membrane is a statement of intended use in that it does not impart additional structure to the claimed product.

11. Applicant argues that one of ordinary skill in the art would not have been motivated to needle the product of EP '863 because they would recognize the needling might produce localized areas of increased permeability and thus create a variance in permeability. However, needling in general is performed to strengthen, integrate and densify web. As set forth above, Krupnik teaches needling during the formation of the web, not as an after treatment which is performed on the finished product. Therefore, the person of ordinary skill in the art would have been motivated by the teaching of Krupnik to needle the web during the formation of the web itself.

12. Applicant argues that one of ordinary skill in the art would not have been motivated to combine the teachings of EP '863 and Krupnik since the web in Krupnik is not sintered. However, EP '863 also teaches non sintered webs. Further, Krupnik is

drawn to a method of forming nonwoven webs which comprise metal fibers. Therefore, the teachings of Krupnik are relevant to the invention of EP '863 which is also drawn to a nonwoven web formed of metal fibers.

13. Applicant argues that the teachings of EP '863 and EP '146 are not interchangeable because the webs in EP '146 are all sintered. However, EP '146 is relied on to show the particular types of fibers which are useful in forming nonwoven metal fiber webs which can be used as burner membranes. EP '146 is not relied on for the teachings of porosity, etc.

14. Applicant argues that one of ordinary skill in the art would not have been motivated to employ the fibers of Krupnik in a burner membrane of EP '863 since the metal fibers in Krupnik have an oil coating. However, the rejection does not state that it would have been obvious to have used the fibers of Krupnik in the membrane of EP '863 but that it would have been obvious to have needled the web during formation as taught by Krupnik.

15. Applicant argues that there would not be an expectation of success for the combination because EP '863 teaches that the burner membranes have to be sintered. However, as set forth above, EP '863 teaches both sintered and non-sintered membranes.

16. The terminal disclaimer filed on 5/15/06 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US



6,607,998 has been reviewed and is accepted. The terminal disclaimer has been recorded.

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

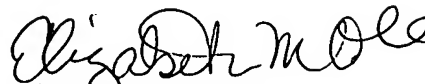
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 1771

The fax number for all official faxes is (571) 273-8300.

A handwritten signature in black ink, appearing to read "Elizabeth M. Cole". The signature is fluid and cursive, with the first name "Elizabeth" and last name "Cole" clearly distinguishable.

Elizabeth M. Cole  
Primary Examiner  
Art Unit 1771

e.m.c